

Patent claims

5        1. A data transmission system for machine tools, production machines, and robots comprising a central data line, having branch off stub-like data lines in which signal processing units are arranged, further comprising transmitting and receiving elements which respectively pass on data in a serial form, wherein a return from the last to the first signal processing unit of the stub-like data line is provided.

10      2. A data transmission system for machine tools, production machines, and robots, comprising a central data line, having branch off stub-like data lines in which signal processing units are arranged, further comprising transmitting and receiving elements which respectively pass on data in a serial form, a return from the last to the first signal processing unit of the central data line is provided.

15      3. The data transmission system according to Claims 1 and 2, wherein a first signal processing unit is designed as a distributor node having a group control function.

20      4. The data transmission system according to Claim 3, wherein a substitute distributor node is incorporated in an annular communication structure.

25      5. The data transmission system according to Claims 1 and 2, wherein a field bus system is provided as the data transmission system.

6. The data transmission system according to Claims 1 and 2, wherein an Ethernet is provided as the data transmission system.